

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TX-PCT-308	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/BE2004/000015	International filing date (day/month/year) 28.01.2004	Priority date (day/month/year) 29.01.2003	
International Patent Classification (IPC) or national classification and IPC C12N5/06, A01K67/027			
Applicant THROMB-X NV, et al.			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

- a. *(sent to the applicant and to the International Bureau)* a total of sheets, as follows:
 - sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
- b. *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

Date of submission of the demand 24.08.2004	Date of completion of this report 05.01.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Nichogiannopoulou, A Telephone No. +49 89 2399-8054



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/BE2004/000015

Box No. I Basis of the report

- 1.** With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:

international search (under Rules 12.3 and 23.1(b))

publication of the international application (under Rule 12.4)

international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements*** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

Description, Pages

1-19 as originally filed

Claims, Numbers

1-20 as originally filed

- a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. The amendments have resulted in the cancellation of:
 the description, pages
 the claims, Nos.
 the drawings, sheets/figs
 the sequence listing (*specify*):
 any table(s) related to sequence listing (*specify*):

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 the description, pages
 the claims, Nos.
 the drawings, sheets/figs
 the sequence listing (*specify*):
 any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/BE2004/000015

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-20
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-20
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-20
	No:	Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/BE2004/000015

Re Item I

Basis of the report

1. The basis of this report is the application as originally filed.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: GARDNER R L ET AL: "REFLECTIONS ON THE BIOLOGY OF EMBRYONIC STEM (ES) CELLS" INTERNATIONAL JOURNAL OF DEVELOPMENTAL BIOLOGY, UNIVERSITY OF THE BASQUE COUNTRY PRESS, LEIOA, ES, vol. 41, April 1997 (1997-04), pages 235-243, XP000944588 ISSN: 0214-6282

D2: MOREADITH R W ET AL: "GENE TARGETING IN EMBRYONIC STEM CELLS: THE NEW PHYSIOLOGY AND METABOLISM" JOURNAL OF MOLECULAR MEDICINE, SPRINGER VERLAG, DE, vol. 75, 1997, pages 208-216, XP002917335 ISSN: 0946-2716

2. **Novelty and Inventive step (Article 33(2) and (3) PCT)**

The present application discloses the derivation of ES cells with germline transmission capability from *Mus musculus* x *Mus spretus* hybrid blastocysts. The hybrid ES cells can be used to introduce mutations into the *Mus spretus* genome with the purpose of mapping genes.

- 2.1. D1 and D2 are reviews on the issue of ES cell derivation and manipulation and explicitly state that most species and even most inbred mouse strains have proven refractory to attempts for establishing ES cell lines with germ-line transmission potential. It is clear from these reviews that the present application contains novel and inventive subject-matter under the terms of Articles 33(2) and (3) PCT.

3. **Industrial applicability (Article 33(4) PCT)**

The subject-matter of the claims appears to be industrially applicable under the

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terms of Article 33(4) PCT.